



STEM

Educator Effectiveness Academy

Welcome to Day Three !



STEM - Day Three Outcomes

(STEM Teachers and Principals)

- Participants will research the effectiveness of developing a STEM Professional Learning Community (PLC).
- Participants will list barriers, challenges, and solutions associated with developing a STEM PLC.
- Participants will propose ways to implement a STEM PLC in their schools.

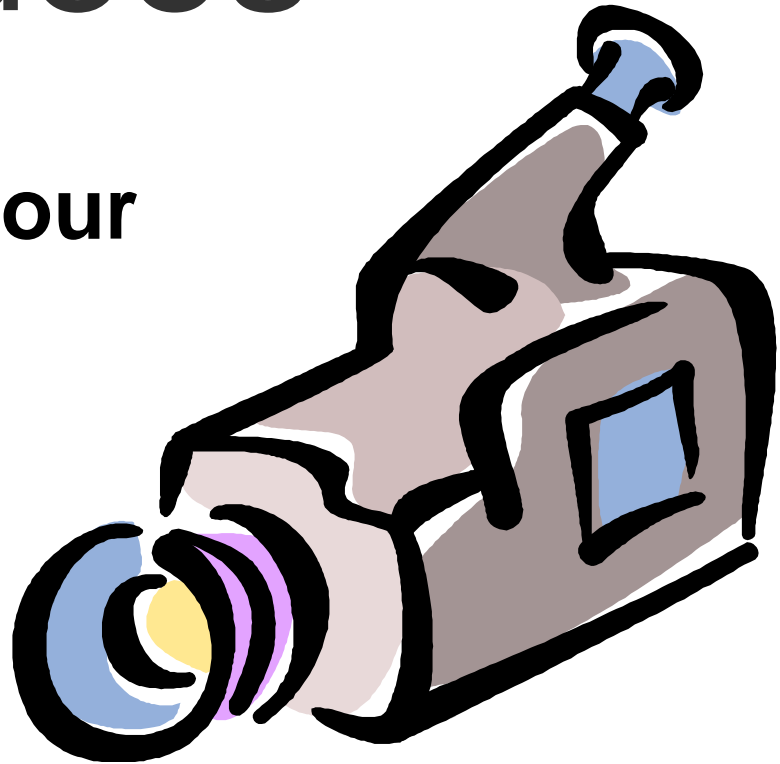
Day Three STEM Activities

- PLC Videos
- Mind Mapping (components of PLCs)
- PLC Articles (3)
 - jigsaw group activity
 - group presentations
- Enhance Mind Map, Gallery Walk
- Stop, Start, Continue Activity
 - identify barriers, challenges, solutions
- Synectics Activity



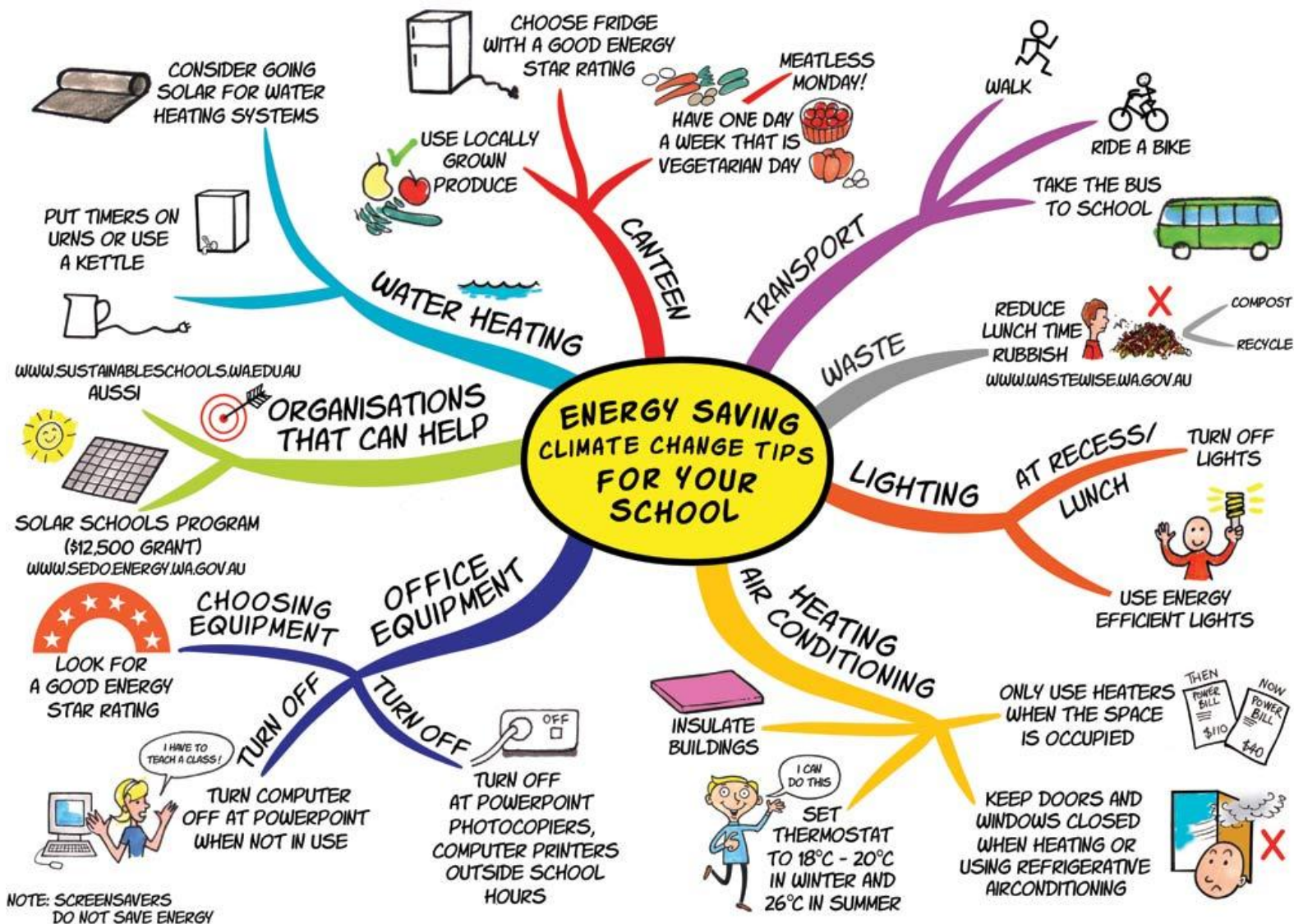
Videos

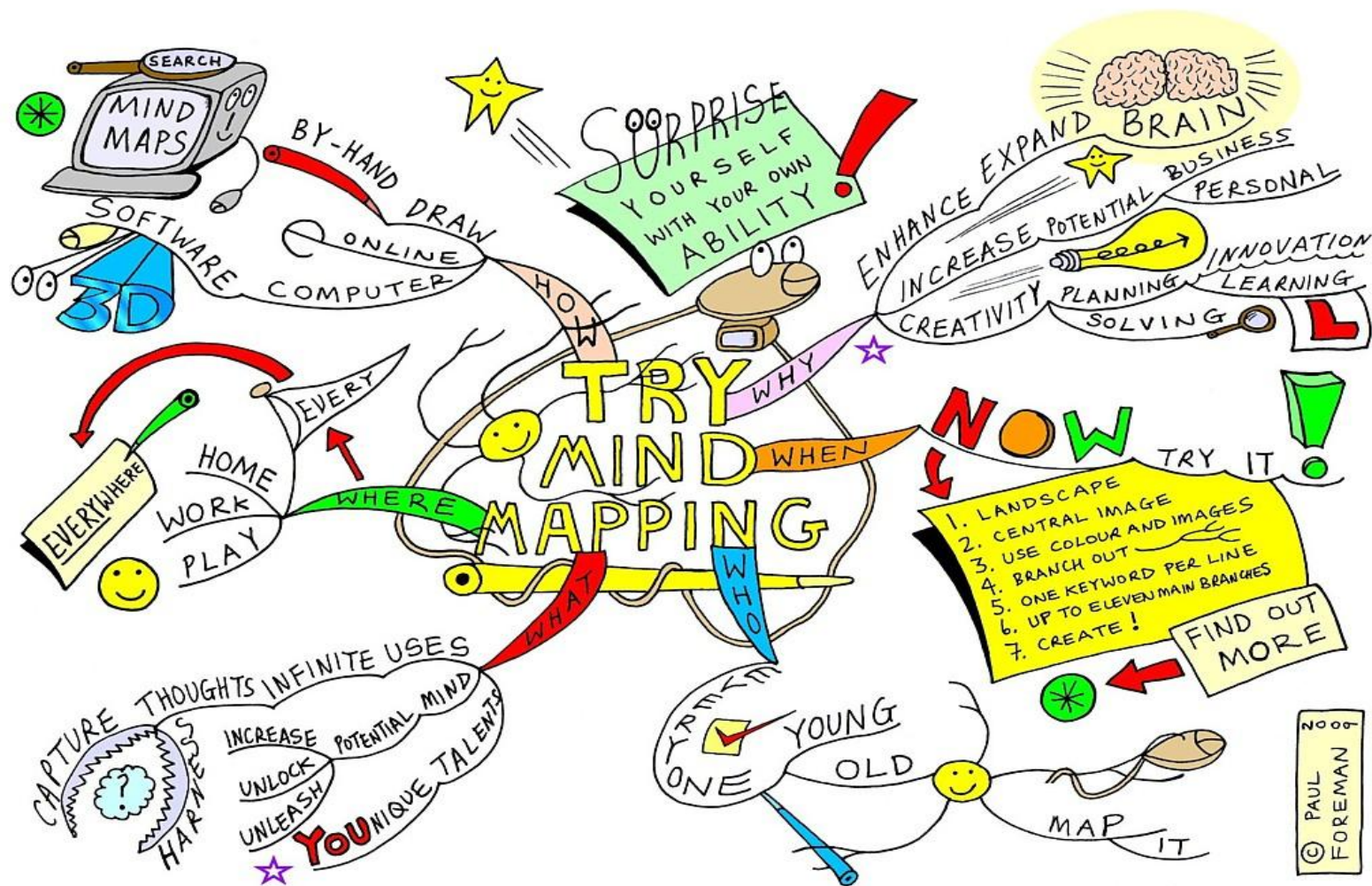
Show **PLC** and **Dufour**
Videos



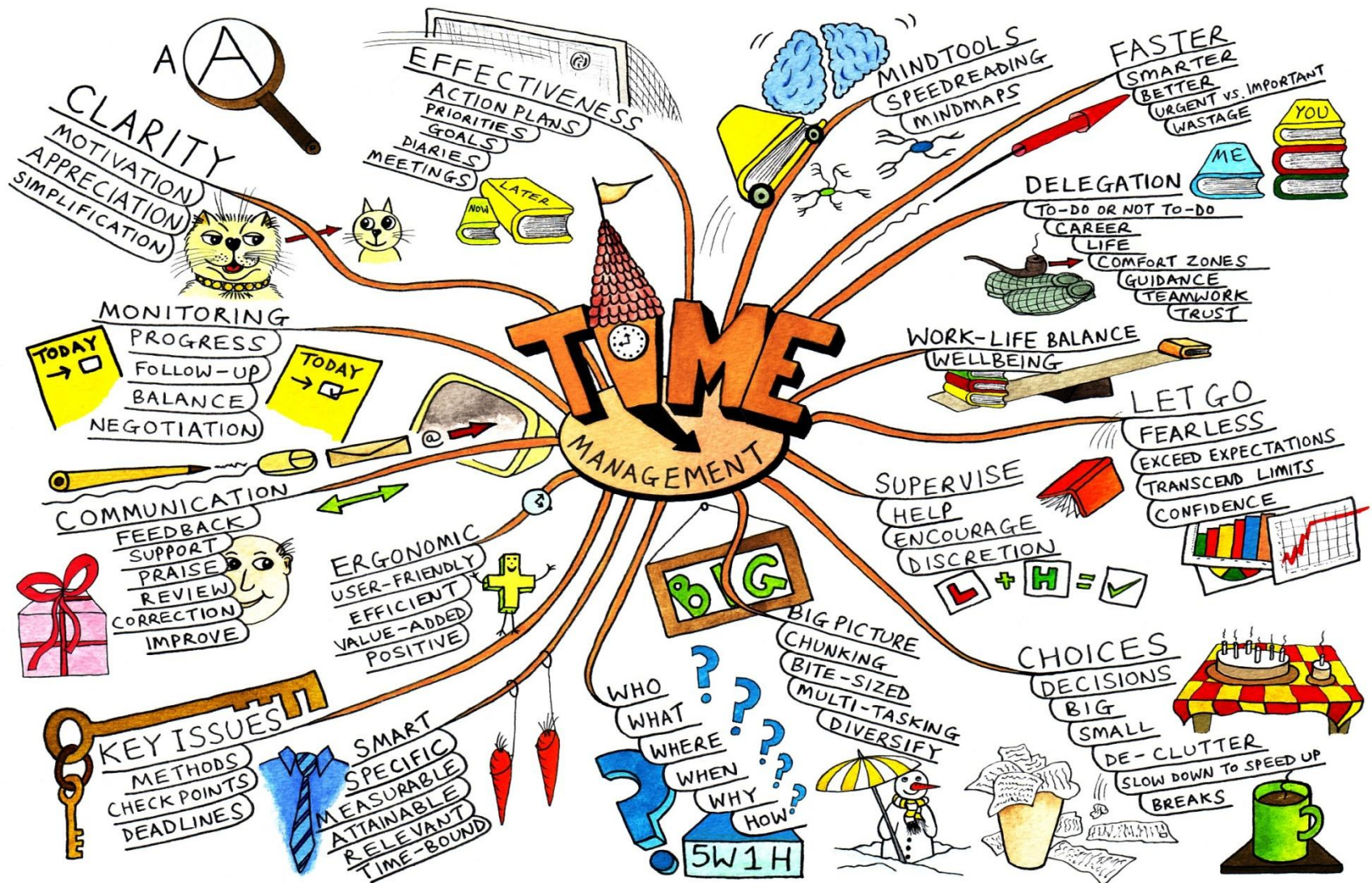
Mind Mapping

- Mind mapping is a simple easy way to represent ideas using key words, colors and imagery.
- The purpose of the ***mind map*** is to capture what you already know about **professional learning communities** or more specifically **STEM PLCs**.





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Welcome to Session 2

- Review of Session One (for principals)
- To further explore the importance and structure of STEM Professional Learning Communities you are going to read articles that delve into the rationale, the research and the **how to** of PLCs. The activity you are going to do next is called a **Modified Jigsaw**.
- Enhancement of STEM PLC Mind Map

Modified Jigsaw

- Choose an article and join others who are reading the same article.
- Take about 15 minutes to read the article.
- Discuss the key themes as a group.
- Decide how you will present the information to the other groups.
- Share your information with the other groups.



PLC Research Articles

- **Professional Learning Communities: Building Blocks for School Culture and Student Learning**
- **Team up for 21st Century Teaching Learning**
- **STEM Teachers in PLCs: A Knowledge Synthesis**

Mind Mapping

- Rejoin your original group to revise and enhance your **STEM PLC Mind Map** based on the information from the articles that were just presented.
- Post mind maps on the wall.

Welcome to Session 3

- Review of Sessions One and Two (for principals)
- *STEM PLC Mind Map* Gallery Walk
- STOP - START - CONTINUE activity
- Synectics activity

Mind Map - Gallery Walk

- Each group should select a person to stay with your mind map to summarize your display and answer questions.
- Others should circulate to other groups mind maps and return to tables.



Stop - Start - Continue

- This might be the first step in a creating STEM PLC in your school.
- Take a sheet of flip chart paper and divide it into 3 columns. Label one column **STOP**, another **START**, and the last **CONTINUE**.
- Groups discuss what they would need to stop doing, start doing or continue doing to create a STEM PLC at their schools.

Stop - Start - Continue

STOP	START	CONTINUE

Synectics Activity

synectics (*noun*)

a method of identifying and solving problems that depends on creative thinking, the use of analogy, and informal conversation among a small group of individuals with diverse experience and expertise

World English Dictionary



Visual Synectics Activity

- **How does the picture on the screen relate to STEM PLCs?**
- **What words are similar to this image?**
- **What words are different?**
- **What are the feelings associated with this image?**
- **What are the characteristics of this image?**













Conclusion

- **Mission:** Maryland's STEM education prepares and inspires learners of all ages to contribute to the advancement of the global community.
- **Vision:** Maryland's vision is to be a leader in STEM education, preparing and inspiring generations of learners to meet the challenges of the global society through innovation, collaboration, and creative problem solving.

Thank you!

